

STN	Textílie Postupy domáceho prania plošných textílií pred skúšaním horľavosti (ISO 12138: 2017)	STN EN ISO 12138 80 0877
------------	--	--

Textiles - Domestic laundering procedures for textile fabrics prior to flammability testing (ISO 12138:2017)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/18

Obsahuje: EN ISO 12138:2018, ISO 12138:2017

Oznámením tejto normy sa ruší
STN EN ISO 12138 (80 0877) z októbra 1999

126913

EUROPEAN STANDARD

EN ISO 12138

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2018

ICS 59.080.30; 13.220.40

Supersedes EN ISO 12138:1996

English Version

Textiles - Domestic laundering procedures for textile fabrics prior to flammability testing (ISO 12138:2017)

Textiles - Méthodes de lavage domestique des étoffes en vue des essais d'inflammabilité (ISO 12138:2017)

Textilien - Nichtgewerbliche Waschverfahren für Textilien vor der Entflammbarkeitsprüfung (ISO 12138:2017)

This European Standard was approved by CEN on 11 January 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

EN ISO 12138:2018 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 12138:2018) has been prepared by Technical Committee ISO/TC 38 “Textiles” in collaboration with Technical Committee CEN/TC 248 “Textiles and textile products” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2018, and conflicting national standards shall be withdrawn at the latest by August 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 12138:1996.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 12138:2017 has been approved by CEN as EN ISO 12138:2018 without any modification.

INTERNATIONAL STANDARD

ISO
12138

Second edition
2017-12

Textiles — Domestic laundering procedures for textile fabrics prior to flammability testing

*Textiles — Méthodes de lavage domestique des étoffes en vue des
essais d'inflammabilité*



Reference number
ISO 12138:2017(E)

© ISO 2017

ISO 12138:2017(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Apparatus and reagents	1
5 Composition of the load	2
6 Preliminary calculations	2
6.1 Drum volume.....	2
6.2 Test load.....	2
6.3 Detergent quantity.....	2
6.4 Low dip level.....	3
6.5 High dip level.....	3
7 Washing procedures for Type A machines	3
8 Washing procedures for Type B machines	4
9 Washing procedures for Type C machines	4
10 Conditioning and testing atmosphere	5
11 Test report	5
Annex A (normative) Preparation of artificial hard water	6
Annex B (informative) Composition of the detergent	7
Annex C (informative) Parameters for Type A machines	8
Annex D (informative) Parameters for Type B machines	9
Annex E (informative) Parameters for Type C machines	10
Bibliography	11

ISO 12138:2017(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 2, *Cleansing, finishing and water resistance tests*.

This second edition cancels and replaces the first edition (ISO 12138:1996), which has been technically revised.

The main changes compared to the previous edition are as follows:

- The text was updated to use the washing machine technology currently available. Referenced herein, ISO 6330:2012 incorporated significant changes to washing machines compared to its previous editions. This second edition of ISO 12138 incorporates those updates, throughout.
- Additionally, this second edition incorporates a reference to ISO 139, which provides direction for atmospheric conditioning prior to flammability testing.

Introduction

The methods specified in this document provide standardized domestic laundering procedures for use prior to assessing the likely flammability behaviour of textile materials. The methods are based on ISO 6330:2012 but incorporate several additional features which ensure that certain critical parameters are more closely controlled. Alternative procedures for commercial laundering prior to assessing the flammability of textile fabrics are given in ISO 10528.

Because of the wide variety of laundering methods used domestically, it is impossible to specify a standard laundering procedure which will reproduce the effect of laundering under all possible conditions. The methods specified, however, can be used to detect which materials are adversely affected by domestic laundering under conditions which are appropriate for the material being laundered. Such adverse effects are not restricted to textiles which have been treated with flame retardants.

The flammability of textile materials can be affected by a combination of different results:

- fibre content;
- effect of mechanical finishing/surface texture changes;
- shrinkage or growth of the material, causing a change in mass per unit area;
- abrasion of the material, causing a decrease in mass per unit area;
- removal of finishes;
- chemical modification of the fibre or finish;
- deposition of hard-water salts;
- including application of softeners in the rinse cycle;
- moisture content of the product under flammability evaluation.

The various factors in these test methods are controlled in order to standardize all these effects as far as possible. The essential features specified in the methods are:

- a) water hardness;

A medium water-hardness level is specified in order to ensure that any major effects caused by deposition or chemical modification are detected. Different procedures for preparing this hard water are given, depending on the hardness of the initial water supply.

- b) degree of loading and composition of load;

These factors influence the mechanical action of the washing machine and the deposition results.

- c) volumes of liquor used for washing and rinsing;

The liquor:fabric ratio affects the mechanical action and the deposition results. In addition, it is essential to know the volumes of water being used in order to make any necessary adjustments to the water hardness.

- d) type and quantity of detergent;

The use of a standard nonphosphate detergent containing sodium percarbonate and a bleach activator is recommended because of the increasing use of this type of detergent. The detergent used shall be agreed between the interested parties. The detergent can affect the chemical modification of a material or finish by its bleaching action, and also affects the deposition because of the sequestering effect of the nonphosphate builders included in the formulation.

ISO 12138:2017(E)

e) wash temperatures;

Four standard wash temperatures are specified so that the appropriate temperature for the material being laundered can be selected.

NOTE The combination of hard water and high perborate detergent used in this document is not suitable for laundering flame-retardant materials at temperatures above 60 °C.

f) degree of agitation;

The heating period can vary considerably depending on the inlet water temperature and the heating capacity of the washing machine. Reduced agitation is used during filling and heating in order to avoid variations in mechanical action. Normal agitation is specified for the 12-min washing period for washes at 50 °C and 60 °C, but reduced agitation is used during the washing period for 30 °C and 40 °C washes.

g) rinsing procedure;

A standard rinsing procedure is specified, as rinsing can have considerable influence on the deposition of hard-water salts. Fabric softeners added to the rinse are not used in this method.

h) washing machine.

The methods as presented allow the use of three different types of washing machine. As far as possible the same laundering conditions have been specified for each type of machine. The degree of loading is 60 g per litre of drum volume, and the detergent quantity is 20 g per kilogram of wash load. For horizontal drum machines (Type A), the liquor: fabric ratio is 5,0:1,0 for washing and 9,0:1,0 for rinsing.

The mechanical action and the liquor: fabric ratio (20:1) used in the vertical drum machine (Types B and C) are different from those used in the Type A machines. Experience indicates that testing with this type of machine is equally effective in detecting finish removal, although mechanical effects and deposition results may be different.

Textiles — Domestic laundering procedures for textile fabrics prior to flammability testing

1 Scope

This document specifies methods for repeated domestic laundering at selected wash temperatures prior to assessing flammability behaviour of textile materials. The washing machines and procedures specified are based on those given in ISO 6330:2012, but specific requirements are provided for water hardness and volumes, detergent type and quantity, machine loading and degree of agitation.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

ISO 6330:2012, *Textiles — Domestic washing and drying procedures for textile testing*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN